

c) Amendments to the Claims

1. (Currently amended) Apparatus for closing a wound comprising:

a first elongated substrate including first and second surfaces; and

a second elongated substrate including first and second surfaces,

wherein the second surfaces are configured to mate with each other,

wherein the first surfaces are covered by a multiplicity of barbs for adhering to the wound.

~~an elongated substrate comprising a biocompatible material, the elongated substrate having a first surface, and~~

~~a multiplicity of barbs projecting from the first surface, the multiplicity of barbs having tissue penetrating distal ends,~~

~~wherein the multiplicity of barbs are cut from the substrate.~~

2. (Currently amended) The apparatus of claim 1, wherein ~~the elongated substrate further comprises a second surface, and the multiplicity of barbs projects from the first and second surfaces.~~

3. (Currently amended) The apparatus of claim 2, wherein the each elongated substrate further comprises portions defining a plurality of perforations that extend from the first surface to the second surface.

4. (Original) The apparatus of claim 3, wherein the plurality of perforations define suture eyelets.

C2 5. (Currently amended) The apparatus of claim 1, wherein the each elongated substrate further comprises a coating of a therapeutic agent.

6. (Currently amended) The apparatus of claim 1, wherein the each elongated substrate is impregnated with a therapeutic agent.

C3 7. (Previously amended) The apparatus of claim 1 further comprising a therapeutic agent selected from a family of angiogenic growth factors.

C4 8. (Currently amended) The apparatus of claim 1, wherein the first and second surfaces are tied together using a suture.
~~each one of the multiplicity of barbs includes a shank coupling the tissue penetrating distal end to the substrate, and one or more projections from the shank.~~

9.-13. (Canceled)

C5 14. (Currently amended) The apparatus of claim 1, wherein the each elongated substrate comprises a series of units interconnected by joints.

15.-17. (Canceled)

C6 18. (Currently amended) A method for performing an anastomosis comprising:

providing a device comprising an elongated tubular substrate of a biocompatible material having a first surface and

multiple rows ~~a multiplicity~~ of barbs projecting from the first surface;

cl positioning the elongated substrate within a wound so that the multiplicity of barbs is directed towards the tissue defining a perimeter of the wound; and

squeezing the perimeter of the wound against the multiplicity of barbs to adhere the perimeter of the wound to the elongated substrate.

c1 11 19. (Original) The method of claim 18¹⁰ wherein providing a device comprises providing a device coated or impregnated with a therapeutic agent, the method further comprising, during wound healing, releasing a predetermined amount of therapeutic agent into the vicinity of the wound.

12 20. (Original) A method for closing a tissue wound comprising:

providing a device comprising first and second elongated substrate halves, each of the first and second elongated substrate halves comprising a biocompatible material having a first surface and a multiplicity of barbs projecting from the first surface;

positioning the first elongated substrate half within a wound so that the multiplicity of barbs is directed towards the tissue defining a first portion of the perimeter of the wound;

squeezing the first portion of the perimeter of the wound against the multiplicity of barbs to adhere the first portion of the perimeter of the wound to the first elongated substrate half;

positioning the second elongated substrate half within the wound so that the multiplicity of barbs is directed towards

the tissue defining a second portion of the perimeter of the wound; and

squeezing the second portion of the perimeter of the wound against the multiplicity of barbs to adhere the second portion of the perimeter of the wound to the second elongated substrate half; and

moving the first and second substrate halves into apposition.

13/ 21. (Original) The method of claim 20 wherein moving the first and second substrate halves into apposition comprises threading suture material through eyelets in the first and second elongated substrate halves and knotting the suture material.

14 22. (Currently amended) Apparatus for closing a wound comprising:

an elongated substrate comprising a biocompatible material, the elongated substrate having a first and a second surface ~~portions defining a plurality of perforations that extend from the first surface to the second surface; and~~

a ~~multiplicity~~ multiple rows of barbs projecting from the first and second surfaces,

wherein the ~~multiplicity~~ multiple rows of barbs have tissue-penetrating distal ends.

14 23. (Currently amended) The apparatus of claim 22, wherein ~~the plurality of perforations~~ portions of the elongated substrate define a plurality of perforations that extend from the first surface to define suture eyelets.

14/ 24. (Previously added) The apparatus of claim 22, 14/
wherein the elongated substrate further comprises a coating of a
therapeutic agent.

17/ 25. (Previously added) The apparatus of claim 22, 14/
wherein the elongated substrate is impregnated with a
therapeutic agent.

18/ 26. (Currently amended) The apparatus of claim 22, 14/
wherein each ~~one of the multiplicity of barbs~~ barb includes a
shank coupling the tissue-penetrating distal end to the
substrate, and one or more projections from the shank.

19/ 27. (Currently amended) The apparatus of claim 26, 18/
wherein ~~the multiplicity of barbs are~~ each barb is cut from the
substrate.

20/ 28. (Previously added) The apparatus of claim 22, 14/
wherein the elongated substrate has the form of a tube.

21/ 29. (Previously added) The apparatus of claim 28, 20/
wherein the tube includes an interior lumen formed by the first
surface.

22/ 30. (Previously added) The apparatus of claim 28, 20/
wherein the tube includes an exterior surface forming the first
surface.

23/ 31. (Previously added) The apparatus of claim 22, 14/
comprising a stent-like structure, wherein the elongated
substrate forms a side anastomosis site of the apparatus.

32. (Previously added) The apparatus of claim 22, wherein the elongated substrate comprises a series of units interconnected by joints.

33. (Previously added) The apparatus of claim 22 further comprising a region of artificial cartilage coupled to the elongated substrate.

34. (Previously added) The apparatus of claim 22 further comprising a replacement intervertebral disc coupled to the elongated substrate.

35. (Currently amended) Apparatus for closing a wound comprising:

an elongated substrate comprising a biocompatible material, the elongated substrate having a first surface; and ~~a multiplicity~~ multiple rows of barbs projecting from the first surface, the ~~multiplicity~~ multiple rows of barbs having tissue-penetrating distal ends,

wherein the elongated substrate has the form of a tube comprising an interior lumen formed by the first surface.

36. (Previously added) The apparatus of claim 35, wherein the elongated substrate further comprises a coating of a therapeutic agent.

37. (Previously added) The apparatus of claim 35, wherein the elongated substrate is impregnated with a therapeutic agent.

38. (Currently amended) The apparatus of claim 35, wherein each ~~one of the multiplicity of barbs~~ barb includes a

shank coupling the tissue-penetrating distal end to the substrate, and one or more projections from the shank.

31/ 39. (Currently amended) The apparatus of claim 38, 330
wherein ~~the multiplicity of barbs are~~ each barb is cut from the substrate.

32/ 40. (Previously added) The apparatus of claim 35 further 27
comprising a stent-like structure, wherein the elongated substrate forms a side anastomosis site of the apparatus.

33/ 41. (Currently amended) Apparatus for closing a wound
comprising:

an elongated substrate comprising a biocompatible material, the elongated substrate having a first surface; and
a ~~multiplicity~~ multiple rows of barbs projecting from the first surface, the ~~multiplicity~~ multiple rows of barbs having tissue-penetrating distal ends,

wherein the elongated substrate has the form of a tube comprising an exterior surface formed by the first surface.

34/ 42. (Previously added) The apparatus of claim 41, 33
wherein the elongated substrate further comprises a coating of a therapeutic agent.

35/ 43. (Previously added) The apparatus of claim 41, 33
wherein the elongated substrate is impregnated with a therapeutic agent.

36/ 44. (Currently amended) The apparatus of claim 41, 33
wherein each ~~one of the multiplicity of barbs~~ barb includes a

shank coupling the tissue-penetrating distal end to the substrate, and one or more projections from the shank.

37/ 45. (Currently amended) The apparatus of claim 44, wherein ~~the multiplicity of barbs are~~ each barb is cut from the substrate. 38/

38/ 46. (Previously added) The apparatus of claim 41 further comprising a stent-like structure, wherein the elongated substrate forms a side anastomosis site of the apparatus. 39/

47.-54. (Canceled)

39/ 55. (Previously added) Apparatus for repairing cartilage comprising:

an elongated substrate comprising a biocompatible material, the elongated substrate having a first surface, a multiplicity of barbs projecting from the first surface, the multiplicity of barbs having tissue-penetrating distal ends; and

a region of artificial cartilage coupled to the elongated substrate.

40/ 56. (Previously added) The apparatus of claim 55, wherein the elongated substrate further comprises a coating of a therapeutic agent. 39/

41/ 57. (Previously added) The apparatus of claim 55, wherein the elongated substrate is impregnated with a therapeutic agent. 39/

42/ 58. (Previously added) The apparatus of claim 58,³⁹³⁹
wherein each one of the multiplicity of barbs includes a shank
coupling the tissue-penetrating distal end to the substrate, and
one or more projections from the shank.

43/ 59. (Previously added) The apparatus of claim 58,⁴²
wherein the multiplicity of barbs are cut from the substrate.

44/ 60. (Previously added) Apparatus for repairing an
intervertebral disc comprising:
an elongated substrate comprising a biocompatible
material, the elongated substrate having a first surface,
a multiplicity of barbs projecting from the first
surface, the multiplicity of barbs having tissue-penetrating
distal ends; and

a replacement intervertebral disc coupled to the
elongated substrate.

45/ 61. (Previously added) The apparatus of claim 60,⁴⁴
wherein the elongated substrate further comprises a coating of a
therapeutic agent.

46/ 62. (Previously added) The apparatus of claim 60,⁴⁴
wherein the elongated substrate is impregnated with a
therapeutic agent.

47/ 63. (Previously added) The apparatus of claim 60,⁴⁴
wherein each one of the multiplicity of barbs includes a shank
coupling the tissue-penetrating distal end to the substrate, and
one or more projections from the shank.

8. 48. 47.
64. (Previously added) The apparatus of claim 63,
wherein the multiplicity of barbs are cut from the substrate.

49. 44.
65. (Previously added) The apparatus of claim 60 further
comprising a region of artificial cartilage coupled to the
elongated substrate.
